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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/980,781      | 12/06/2001  | Jonne Soininen       | P 284104            | 8609             |

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| EXAMINER |
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RAMPURIA, SHARAD K

| ART UNIT | PAPER NUMBER |
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2683

DATE MAILED: 05/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/980,781

Applicant(s)

SOININEN ET AL.

Examiner

Sharad Rampuria

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 5.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Specification***

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or  
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Rune, Agrawal et al., Ahmed et al., Rinne et al.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-5, & 7-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Barnes et al., (hereinafter Barnes) in view of Josse et al. (hereinafter Josse).

1. Regarding Claim 1, Barnes disclosed A method of indicating a macro mobility entity (abstract) in an access system comprising a plurality of mobile stations (12; fig.3), access nodes,

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(SGSN; fig.3) and at least one mobility entity arranged to provide macro mobility management services to the mobile stations while registered to the access system (abstract), said method comprising:

initiating an attach procedure to one of said access nodes by a mobile station, reacting to said mobile station having IP capability by initiating at said access node a selection of a macro mobility entity for said mobile station, (col.10; 26-40) and

Barnes fails to disclosed an access context establishment. However, Josse teaches in an analogous art, that sending the identity of said selected macro mobility entity to said mobile station in association with an access context establishment. (col.12; 64-col.13; 13) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include an access context establishment in order to provide enhanced mobility management in data packet radio service.

2. Regarding Claim 2, Barnes disclosed all the particulars of the claim except a packet protocol context. However, Josse teaches in an analogous art, that A method according to claim 1, comprising sending to said mobile station a request to initiate activation of a packet protocol context for said mobile station in said access system. (col.12; 64-col.13; 13) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include a packet protocol context in order to provide enhanced mobility management in data packet radio service.

3. Regarding Claim 3, Barnes disclosed A method according to claim 1, comprising checking at said access node, in response to said initiation of the attach procedure, whether said mobile station has macro mobility capability. (col.8; 47-62)

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4. Regarding Claim 4, Barnes disclosed A method according to claim 1, comprising sending the identity of said selected mobility entity to said mobile station in said request. (col.8; 47-62)

5. Regarding Claim 5, Barnes disclosed all the particulars of the claim except a packet protocol context. However, Josse teaches in an analogous art, that A method according to claim 1, comprising initiating an activation of the packet protocol context by said mobile station having an associated mobile node in order set up a connection to said selected mobility entity, if a registration according to the macro mobility management is desired. (col.12; 64-col.13; 13)

Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include a packet protocol context in order to provide enhanced mobility management in data packet radio service.

7. Regarding Claim 7, Barnes disclosed A method according to claim 1, comprising checking said macro mobility capability of said mobile station on the basis of subscriber data stored in a subscriber data base or information provided by said mobile station in said attach procedure. (col.9; 48-60)

8. Regarding Claim 8, Barnes disclosed all the particulars of the claim except a classmark information. However, Josse teaches in an analogous art, that A method according to claim 7, wherein said macro mobility capability is indicated by a classmark information of said mobile station. (col.12; 64-col.13; 13) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include a classmark information in order to provide enhanced mobility management in data packet radio service.

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9. Regarding Claim 9, Barnes disclosed A method according to claim 1 or 7, wherein selected mobility entity is a foreign agent associated with one of said gateway nodes in said packet access network. (272; col.10; 26-40)

10. Regarding Claim 10, Barnes disclosed A method according to claim 1 or 7, wherein said identity includes a mobile entity address. (col.9; 13-63)

11. Regarding Claim 11, Barnes disclosed A method according to claim 1 or 7, wherein the access system is a radio system, such as GPRS or UMTS. (GPRS; col.6; 32-36)

12. Regarding Claim 12, Barnes disclosed A packet access system (abstract), comprising: a plurality of mobile stations (12; fig.3), at least some of said mobile stations supporting macro layer mobility, access nodes (SGSN; fig.3), at least one mobility entity arranged to provide macro mobility management services (abstract), said access nodes being responsive to said mobile station having the macro mobility capability to initiate a selection of a macro mobility entity for said mobile station (col.10; 26-40), and

Barnes fails to disclosed selected macro mobility entity. However, Josse teaches in an analogous art, that send an identity of said selected macro mobility entity to said mobile station. (qualified; abstract; & col.12; 64-col.13; 13) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include selected macro mobility entity in order to provide enhanced mobility management in data packet radio service.

13. Regarding Claim 13, Barnes disclosed all the particulars of the claim except a packet protocol context. However, Josse teaches in an analogous art, that A system according to claim 12, wherein said access nodes are responsive to said mobile station having the macro mobility capability to initiate activation of a packet protocol context for said mobile station in said access

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system. (col.12; 64-col.13; 13) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include a packet protocol context in order to provide enhanced mobility management in data packet radio service.

14. Regarding Claim 14, Barnes disclosed A system according to claim 12 or 13, wherein said access nodes are responsive to an attach request received from a mobile station to check whether the mobile station has macro mobility capability. (col.8; 47-62)

15. Regarding Claim 15, Barnes disclosed A system according to claim 12, wherein said access node sends the identity of said selected mobility entity to said mobile station in said request. (col.8; 47-62)

16. Regarding Claim 16, Barnes disclosed all the particulars of the claim except a packet protocol context. However, Josse teaches in an analogous art, that A system according to claim 12, wherein said mobile station, when having an associated mobile node and desiring a macro mobility registration, is arranged to initiate activation of the packet protocol context in order set up a connection to said selected mobility entity according to said identity. (col.12; 64-col.13; 13) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include a packet protocol context in order to provide enhanced mobility management in data packet radio service.

17. Regarding Claim 17, Barnes disclosed A system according to claim 12, wherein said access nodes are arranged to check said macro mobility capability of said mobile station on the basis of subscriber data stored in a subscriber data base or information provided by said mobile station in said attach procedure. (col.9; 48-60)



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18. Regarding Claim 18, Barnes disclosed An access node (SGSN) for a packet access system (abstract) comprising a plurality of mobile stations (12; fig.3), at least some of said mobile stations supporting macro mobility, access nodes serving said mobile stations within respective parts of the packet access system (abstract), and at least two macro mobility entities (GPRS and mobile IP; abstract) being arranged to provide macro mobility management services to the mobile stations while registered to the access system, said access node comprising means, responsive to said mobile station having the macro mobility capability, for

Barnes fails to disclosed selected macro mobility entity. However, Josse teaches in an analogous art, that selecting at said access node a macro mobility entity for said mobile station, and for sending an identity of said selected macro mobility entity to said mobile, station in association with an access context establishment. (qualified; abstract; & col.12; 64-col.13; 13) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include selected macro mobility entity in order to provide enhanced mobility management in data packet radio service.

19. Regarding Claim 19, Barnes disclosed An access node according to claim 18, comprising means for checking whether a mobile station accessing the system via said access node has macro mobility capability. (col.9; 48-60)

20. Regarding Claim 20, Barnes disclosed A system according to claim 12, wherein said macro layer mobility is Mobile Internet Protocol. (mobile IP; abstract)

Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Barnes et al., (hereinafter Barnes) & Josse et al. (hereinafter Josse) further in view of Frid et al. (hereinafter Frid).

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6. Regarding Claim 6, The above combination disclosed all the particulars of the claim except an agent advertisement message. However, Frid teaches in an analogous art, that A method according to claim 1, comprising said macro mobility management being Mobile IP type mobility management, and sending an agent advertisement message from said selected mobility agent to said mobile node over said connection, said agent advertisement message enabling said mobile node to initiate Mobile IP registration. (col.9; 38-48) Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to include an agent advertisement message in order to provide a better & enhanced roaming mechanism.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sharad Rampuria whose telephone number is 703-308-4736. The examiner can normally be reached on Mon-Fri. (9:00-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on 703-308-5318. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-4700.

Sharad Rampuria  
May 12, 2004

  
WILLIAM TROST  
SUPERVISORY PATENT EXAMINER  
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